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27. (Amended) The method as claimed in claim 21, wherein it is carried out for the connection setup is initiated by the subsystem outgoing call.

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28. (Amended) The method as claimed in claim 21, wherein the subsystem performs the connection transfer procedures between various repeater stations and/or between a repeater station and the home base station.

In the Abstract:

Please replace the Abstract in its entirety with the Abstract attached hereto.

REMARKS

The above amendments to the specification, claims and abstract have been made to place the application in proper U.S. format and to conform with proper grammatical and idiomatic English. None of the amendments herein are made for reasons related to patentability. No new matter has been added.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made**".

[illegible]

By:

Morrison & Foerster LLP
2000 Pennsylvania Avenue, N.W.
Washington, D.C. 20006-1888
Telephone: (202) 887-6924
Facsimile: (202) 263-8396

VERSION WITH MARKINGS TO SHOW CHANGES MADE

For the convenience of the Examiner, the changes made are shown below with deleted text in strikethrough and added text in underline.

In the Specification:

Page 1 before the first paragraph, has been amended to include the following insert:

This application claims priority to International Application No. PCT/DE99/03045 which was published in the German language on September 23, 1999.

Page 1, between lines 4 and 5 has been amended to insert the following heading:

TECHNICAL FIELD OF THE INVENTION.

Paragraph beginning on line 5 of page 1 has been amended as follows:

The invention relates to an in-house subsystem in a mobile radio network and/or a wired communication network, and in particular to, an in house subsystem in a mobile radio network having comprising a fixed home base station, at least one repeater station (repeater) and at least one mobile station. ~~The invention also relates to a method for communication in a subsystem of a mobile radio network and/or of a wired communication network.~~

Page 1, between lines 11 and 12 has been amended to insert the following heading:

BACKGROUND OF THE INVENTION.

Paragraph beginning on line 12 page 1 has been amended as follows:

A ~~similar~~ subsystem and a ~~similar~~ method are known from international patent application WO 94/19877. This application shows a subsystem in a mobile radio network which has a fixed base station, a repeater station and a plurality of mobile stations, the fixed base station being connected to an external telecommunication network and being connected to a

mobile station by means of a transmission/reception antenna. Accordingly, this document also discloses a method for communication in a subsystem of a mobile radio network or of a wired communication network, where, in the subsystem, comprising a plurality of elements, the base station maintains a connection to a mobile radio network and possibly to a landline network and forwards this connection to the at least one mobile station.

Paragraph beginning on line 1 of page 2 has been amended as follows:

Reference is also made to the applicant's patent application DE 198 20 760 A1, ~~published after the priority date~~, which solves the problem of adequate coverage. This document shows a broadband communication system having a plurality of wireless communication appliances connected to the telephone network via repeater stations, where the repeater stations are connected to the power supply network and communicate with one another via the latter.

Page 2, before line 25 has been amended to include the following paragraph:

WO 94/03993 discloses an in-house branch exchange in which a multiplicity of wireless base stations are connected, this "wireless" in-house branch exchange using a frequency scanner to carry out for identification and selection of frequencies.

SUMMARY OF THE INVENTION.

In one embodiment of the invention an in-house subsystem in at least one of a mobile radio network and a wired communication network, a fixed home base station, at least one repeater station, at least one mobile station and at least one transmission/reception antenna for connection either to the at least one mobile station or to the at least one repeater station. The fixed home base station having at least one connection means to an external telecommunication network and at least one transmission/reception antenna for internal connection to the at least one repeater station. The at least one repeater station having at least one connection element for connection either to one of the home base station or to another repeater station and the at least

one mobile station having one of the transmission/reception antennas for communication with at least one of the mobile radio network or with a repeater station, wherein the elements of the subsystem have means which automatically organize the splitting of system resources between the fixed home base station, the at least one repeater station and the at least one mobile station.

In one aspect of the invention the subsystem wherein the means for automatic organization at least comprise an algorithm for automatically splitting the system resources between intermediate connections present in the fixed home base station, the at least one repeater stations and the at least one mobile station, each element of the subsystem automatically using the system resources on the basis of the same algorithm.

In another aspect of the invention the subsystem, wherein the connection means in the fixed home base station is a transmission/reception unit for wireless communication with at least one of the mobile radio network or the wired connection to a landline telecommunication network.

In still another aspect of the invention the subsystem, wherein one connection element in the repeater station is at least one of the transmission/reception antenna a cable connection.

In yet another aspect of the invention wherein, in the case of at least one line of connection, the communication from the fixed home base station to the mobile station is routed via at least one repeater station.

In another aspect of the invention the subsystem, wherein the system resources split among one another include at least different frequencies.

In still another aspect of the invention wherein the system resources split among one another include at least different timeslots.

In yet another aspect of the invention the subsystem wherein the system resources split among one another include at least different Code Division Multiple Access codes.

In another aspect of the invention the subsystem wherein each mobile station, each repeater station and the fixed home base station have a respective personal identification number and the repeater stations and/or the fixed home base station has a means for distinguishing

between mobile stations with access authorization and mobile stations without access authorization.

In still another aspect of the invention the subsystem wherein the means for distinguishing between mobile stations with access authorization and mobile stations without access authorization has a data memory which includes the personal identification number of mobile stations with access authorization.

In yet another aspect of the invention the subsystem wherein the subsystem is connected to the mobile radio network on the basis of a Frequency Division Duplex method and the connection in the subsystem is based on a Time Frequency Division Duplex method.

In another aspect of the invention the subsystem as claimed in claim 1, wherein, in the case of one repeater station, said repeater station has means for implementing transfer and/or acceptance of the mobile station to/by the fixed home base station.

In yet another aspect of the invention the subsystem wherein in the case of at least two repeater stations, said repeater stations have means for implementing connection transfer for the mobile station among the repeater stations.

In still another aspect of the invention the subsystem wherein at least one repeater station has means for implementing connection transfer and connection acceptance for the mobile station between the mobile radio network and the repeater stations.

In another aspect of the invention the subsystem wherein the subsystem is associated with a Global System for Mobile Communications network.

In still another aspect of the invention the subsystem wherein the subsystem is associated with a Universal Mobile Telecommunications System network.

In yet another aspect of the invention the subsystem wherein the subsystem's landline network connection is associated with a Integrated Services Digital Subscriber Line network.

In another aspect of the invention the subsystem wherein the subsystem's landline network connection is associated with a Public Switched Telephone Network.

In still another aspect of the invention the subsystem wherein the subsystem's landline network connection is associated with a power supply network/powerline network.

In yet another aspect of the invention the subsystem wherein the subsystem's landline network connection is associated with a Digital Subscriber Line/Asymmetric Digital Subscriber Line network.

In another embodiment of the invention a method for communication in a subsystem of at least one of a mobile network and a wired communication network, the subsystem comprising: a home base station; at least one repeater station; and at least one mobile station where the home base station maintains a connection to at least one of a mobile radio network and a landline network, and forwards the connection to the at least one mobile station using the at least one repeater station, wherein one repeater station automatically splits the resources.

In one aspect of the invention the method wherein the resource splitting includes splitting used frequencies and/or used timeslot and/or Code Division Multiple Access code.

In still another aspect of the invention the method wherein the mobile station or home base station which initiates the logical connection setup starts the automatic use of the resources between itself and the next connection element in the logical connection chain, and, if there are one or more repeater stations in the logical line of connection, the respective repeater station performs channel setup for the next element, including automatic resource use.

In yet another aspect of the invention the method wherein a repeater station serves a plurality of mobile stations at the same time.

In another aspect of the invention the method wherein the repeater station transmits on a Broadcast Control Channel a list of resources already used which cannot be used by the mobile station initiating a connection.

In yet another aspect of the invention the method wherein the connection setup is initiated from the landline network and/or mobile radio network incoming call.

In still another aspect of the invention the method wherein it is carried out for the connection setup is initiated by the subsystem outgoing call.

In another aspect of the invention the method wherein the subsystem performs the connection transfer procedures between various repeater stations and/or between a repeater station and the home base station.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates an exemplary subsystem of the invention for a building complex.

Figure 2 illustrates an exemplary subsystem of the invention with a different repeater split.

DETAILED DESCRIPTION OF THE INVENTION

Paragraph beginning on line 25 of page 2 has been amended as follows:

~~It is therefore an object of the~~ The invention to describe describes an in-house subsystem in a mobile radio network and/or in a wired communication network and a method for communication in a subsystem of a mobile radio network and/or of a wired communication network which provides satisfactory transmission/reception coverage for the mobile stations even in relatively large buildings and building complexes, including in the associated open-air installations.

Paragraph beginning on line 1 of page 3 has been amended as follows:

~~Accordingly, the~~ The inventors propose discloses an in-house subsystem in a mobile radio network and/or in a wired communication network which comprises, for example, a fixed home base station, at least one repeater station (repeater) and at least one mobile station, the fixed home base station having at least one connection means to an external telecommunication network and at least one transmission/reception antenna for internal connection to the at least one repeater station, the at least one repeater station having at least one connection element for connection either to the home base station or to another repeater station, and at least one

transmission/reception antenna for connection either to the at least one mobile station or to another repeater station, and the at least one mobile station having a transmission/reception antenna for communication with the mobile radio network or with a repeater station, all the elements of the subsystem having means which automatically organize the splitting of the system resources between the home base station, the at least one repeater station and the at least one mobile station. The way in which automatic organization works is explained in more detail further below.

Paragraph beginning on line 24 of page 3 has been amended as follows:

~~It should be pointed out that, in this document, the~~ The term “in-house” in the context of the subsystem is used in the sense of the term “residential”, as used generally in specialist circles, and is used to distinguish from “public” systems.

Paragraph beginning on line 29 of page 3 has been amended as follows:

~~One particular refinement of~~ In the subsystem according to the invention, ~~proposes that~~ the means for automatic organization may at least comprise an algorithm for automatically splitting the system resources between intermediate connections present ~~between~~ in the home base stations, the at least one repeater stations and the at least one mobile station, each element of the subsystem automatically using the system resources on the basis of the same algorithm.

Paragraph beginning on line 1 of page 4 has been amended as follows:

~~In another advantageous refinement the,~~ In one embodiment, the connection means in the home base station are/is a transmission/reception unit for wireless communication with a mobile radio network and/or are/is a wired connection to a landline telecommunication network.

Paragraph beginning on line 6 of page 4 has been amended as follows:

In another embodiment, ~~accordance with another advantageous refinement~~ of the subsystem, in the case of at least one line of connection, the communication from the home base station to a mobile station is routed via at least one repeater station or via a plurality of repeater stations communicating with one another.

Paragraph beginning on line 17 of page 4 has been amended as follows:

~~Another requirement within the scope of the invention is that each~~ Each mobile station, each repeater station and the home base station have a respective PIN (PIN = Personal Identification Number), and the repeater stations and/or the home base station have a means for distinguishing between mobile stations with access authorization and mobile stations without access authorization. Advantageously, the means for distinguishing between mobile stations with access authorization and mobile stations without access authorization can also have a data memory which contains the PIN of mobile stations with access authorization.

Paragraph beginning on line 36 of page 4 has been amended as follows:

~~Another advantageous refinement of the subsystem according to the invention is that the~~ The at least one repeater station ~~has~~ may have means for implementing transfer and/or acceptance of the mobile station (handover) to/by the home base station and/or to/by another repeater station. This allows a mobile station to move freely within the coverage area of the subsystem while the connection of the mobile station is routed via different connection paths and repeater stations, according to location, or is changed over between different repeater stations and connection paths.

Paragraph beginning on line 9 of page 5 has been amended as follows:

~~Another, more extensive refinement of the subsystem is that the~~ The at least one repeater station may alternatively have means for implementing connection transfer and connection

acceptance for the mobile station (handover) between the mobile radio network and the repeater stations. This achieves further improved mobility for the mobile stations, since unproblematical transfer between an internal connection in the subsystem to the external connection in the mobile radio network is now also possible, without the user's communication being disrupted by this process.

Paragraph beginning on line 20 of page 5 has been amended as follows:

The subsystem described above can, by way of example, be associated with the GSM network (GSM = Global System for Mobile Communications) and/or with the UMTS network (UMTS = Universal Mobile Telecommunication System). Similarly, the subsystem's landline network connection can be associated with the ISDN network (ISDN = Integrated Services Digital Network), with the PSTN network (PSTN = Public Switched Telephone Network), with the power supply network/powerline network and/or with the xDSL/ADSL network (xDSL = general generic term for Digital Subscriber Line, ADSL = Asymmetric Digital Subscriber Line). One having ordinary skill will recognize that the invention is not limited to these embodiments.

Paragraph beginning on line 33 of page 5 has been amended as follows:

~~The invention also achieves the object~~ The invention which is set above by means of a method for communication in a subsystem of a mobile radio network and/or of a wired communication network, where, in the subsystem, which comprises a plurality of elements ~~containing~~ including a fixed home base station, at least one repeater station and at least one mobile station, the home base station maintains a connection to a mobile radio network and possibly to a landline network and forwards this connection to the at least one mobile station using the at least one repeater station, and the at least one repeater station automatically splits the resources. This automatic splitting of resources represents automatic organization of the system, the operation of which will be explained in more detail below ~~at a later point~~.

Paragraph beginning on line 14 of page 6 has been amended as follows:

In the preferred embodiment, it is preferable that the ~~Advantageously, with the designated method, only that~~ element (i.e., mobile station or base station) which initiates the logical connection setup starts the automatic use of the resources (i.e., setup/clear-down of the data channels) between itself and the next connection element in the logical connection chain. If there are one or more repeater stations in the logical line of connection, the respective repeater station performs channel setup for the next element, including automatic resource use.

Paragraph beginning on line 24 of page 6 has been amended as follows:

In another embodiment, ~~Another refinement of the method proposes that~~ a repeater station can serve a plurality of mobile stations at the same time. This may be done, for example, by virtue of the repeater station(s) operating at a plurality of frequencies at the same time, or each mobile station being assigned one or more timeslots in successive time frames.

Paragraph beginning on line 31 of page 6 has been amended as follows:

One ~~advantageous~~ option for splitting the available system resources can involve the repeater station transmitting on a particular, predefined resource (frequency, code, timeslot), e.g. on a BCCH (Broadcast Control Channel), or in a particular free timeslot a list of resources already used. In this way, a mobile station potentially initiating a connection knows which resources cannot currently be used.

Paragraph beginning on line 10 of page 7 has been amended as follows:

With similar advantage, the invention also provides the opportunity to use the method described ~~in more detail~~ above within the subsystem for hand over procedures between the various repeater stations and/or between a repeater station and the base station.

Paragraph beginning on line 15 of page 7 has been amended as follows:

The ~~forementioned concept~~ of automatic organization in terms of resource splitting denotes a search algorithm which is ~~respectively~~ implemented by the base station, the repeater station and/or the mobile station and assesses the ~~respectively~~ free system resources - which usually comprise frequency, code and timeslot indices - using a quality criterion (e.g. RSSI = Radio Signal Strength Indication = measurement of reception field strength, checking of CRC bits), to determine the extent to which the resources are disrupted or used, and uses a cyclically refreshed look-up table (for frequency, code and timeslot index) to decide which resource is used for data transmission.

Paragraph beginning on line 5 of page 8 has been amended as follows:

~~Another improvement and optimization, which comes to bear particularly with a~~ In large volumes of traffic, ~~can involve the repeater station~~ can use using the BCCH to inform the mobile stations of which resources are already used or which resources cannot be used. This prevents faults (e.g. the simultaneous attempt by two mobile stations to access the same resource).

Paragraph beginning on line 12 of page 8 has been amended as follows:

~~Other refinements, additional features and advantages of the invention can be found in the description below of preferred illustrative embodiments with reference to the drawings, and in the dependent claims.~~

Paragraph beginning on line 17 of page 8 has been amended as follows:

One having ordinary skill will appreciate that ~~It goes without saying that the features of~~ the invention ~~which are~~ mentioned above, and ~~are yet~~ to be explained below, can be used not only in the particular combination indicated, but also in other combinations or on their own,; ~~without departing from the scope of the invention.~~

Paragraph beginning on line 26 of page 8 has been amended as follows:

Figure 1: ~~inventive subsystem for a building complex.~~

Figure 2: ~~further variant of a subsystem with a different repeater split.~~

Paragraph beginning on line 31 of page 8 has been amended as follows:

Figure 1 is a schematic illustration of an inventive subsystem with its elements in a building complex having four building parts A-D. The building part A ~~contains~~ includes a home base station 3 connected to a mobile radio network 1 via an external transmission/reception antenna 4. The mobile radio network may be, by way of example, a GSM network, UMTS network or other mobile radio network. In addition, the base station is connected by means of a wire line 22 to a landline network, e.g. to the ISDN network, PTSN network or another hardwired communication network 2. For internal communication, the home base station 3 has a transmission/reception antenna 5 which it can use to connect to the other mobile stations 17 and repeater stations 7 and 8 in the building part A.

Paragraph beginning on line 13 of page 9 has been amended as follows:

The repeater station 8 has a transmission/ reception antenna 12 and 13 situated in the building part A and in the building part B, ~~respectively~~. The building part B also ~~contains~~ includes a transmission/reception antenna 14 for the repeater station 9 from the building part D. The repeater station 9 also has a transmission/reception antenna 15 for the building part D.

Paragraph beginning on line 36 of page 9 has been amended as follows:

In addition, each of the building parts can ~~contain~~ include one or more mobile station(s) represented symbolically and provided with the reference numerals 17-20. The radio connections between the individual elements of the subsystem are symbolized by the arrows 23-29.

Paragraph beginning on line 28 of page 11 has been amended as follows:

Another variation of the subsystem according to the invention is shown in Figure ~~figure~~ 2. The fundamental difference with respect to Figure ~~figure~~ 1 is that the repeater station 8 is not in the building part A, but rather is installed in the building part B. In addition, the building part D has no repeater stations.

In the Claims:

1. (Amended) An in-house subsystem in at least one of a mobile radio network [(1) and/or in] and a wired communication network, [(2)] comprising:

a fixed home base station [(3)];

at least one repeater station [(6; 7; 8; 9)]; and

at least one mobile station [(17; 18; 19; 20),]; and

at least one transmission/reception antenna for connection either to the at least one mobile station or to the at least one repeater station,

the fixed home base station [(3)] having at least one connection means [(4; 22)] to an external telecommunication network [(1; 2)] and at least one transmission/reception antenna [(5)] for internal connection to the at least one repeater station [(6; 7; 8; 9)],

the at least one repeater station [(6; 7; 8; 9)] having at least one connection element [(10; 11; 12; 13; 14; 15; 16)] for connection either to one of the home base station [(3)] or to another repeater station [(6; 7; 8; 9)],

[and at least one transmission/reception antenna (10; 11; 12; 13; 14; 15) for connection either to the at least one mobile station (17; 18; 19; 20) or to another repeater station (6; 7; 8; 9)], and

the at least one mobile station [(17; 18; 19; 20)] having one of the [a] transmission/reception antennas for communication with at least one of the mobile radio network [(1) and/or] or with a repeater station [(6; 7; 8; 9)], [characterized in that all] wherein the

elements [(3; 6; 7; 8; 9)] of the subsystem have means which automatically organize the splitting of [the] system resources between the fixed home base station, the at least one repeater station [(6; 7; 8; 9)] and the at least one mobile station [(17; 18; 19; 20)].

2. (Amended) The subsystem as claimed in claim 1, [characterized in that] wherein the means for automatic organization at least comprise an algorithm for automatically splitting the system resources between intermediate connections present in [lacuna] the fixed home base station[s (3)], the at least one repeater stations [(6; 7; 8; 9)] and the at least one mobile station [(17; 18; 19; 20)], each element of the subsystem [(3; 6; 7; 8; 9)] automatically using the system resources on the basis of the same algorithm.

3. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the connection means in the fixed home base station [are/]is a transmission/reception unit for wireless communication with at least one of the [a] mobile radio network [(1) and/or are/is a] or the wired connection [(22)] to a landline telecommunication network [(2)].

4. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that the at least] one connection element in the repeater station [(6; 7; 8; 9)] is [a] at least one of the transmission/reception antenna [(4) and/or] a cable connection [(16)].

5. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that], in the case of at least one line of connection, the communication from the fixed home base station to [a] the mobile station is routed via at least one repeater station [(6; 7; 8; 9) or via a plurality of repeater stations (6; 7; 8; 9) communicating with one another].

6. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the system resources split among one another include [contain] at least different frequencies.

7. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the system resources split among one another [contain] include at least different timeslots.

8. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the system resources split among one another [contain] include at least different [CDMA codes (CDMA = Code Division Multiple Access)] Code Division Multiple Access codes.

9. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] each mobile station [(17; 18; 19; 20)], each repeater station [(6; 7; 8; 9)] and the fixed home base station [(3)] have a respective [PIN (PIN = Personal Identification Number),] personal identification number and the repeater stations [(6; 7; 8; 9)] and/or the fixed home base station [(3)] has a means for distinguishing between mobile stations with access authorization and mobile stations without access authorization.

10. (Amended) The subsystem as claimed in claim 9, [characterized in that] wherein the means for distinguishing between mobile stations with access authorization and mobile stations without access authorization has a data memory which [contains] includes the [PIN] personal identification number of mobile stations with access authorization.

11. (Amended) The subsystem as claimed in [one of the preceding claims, characterized in that] claim 1, wherein the subsystem is connected to the mobile radio network [(1)] on the

basis of [the] a Frequency Division Duplex method [FDD method (FDD = Frequency Division Duplex),] and the connection in the subsystem is based on [the TDD method (TDD = Time Division Duplex)] a Time Frequency Division Duplex method.

12. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that], in the case of one repeater station [(6; 7; 8; 9)], said repeater station has means for implementing transfer and/or acceptance of the mobile station [(17; 18; 19; 20)] to/by the fixed home base station [(3)].

13. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that], in the case of at least two repeater stations [(6; 7; 8; 9)], said repeater stations have means for implementing connection transfer for the mobile station [(17; 18; 19; 20)] among the repeater stations [(6; 7; 8; 9)].

14. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that the] at least one repeater station [(6; 7; 8; 9)] has means for implementing connection transfer and connection acceptance for the mobile station [(17; 18; 19; 20)] between the mobile radio network [(1)] and the repeater stations [(6; 7; 8; 9)].

15. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the subsystem is associated with [the] a Global System for Mobile Communications network [GSM network (GSM = Global System for Mobile Communications)].

16. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the subsystem is associated with [the] a Universal Mobile Telecommunications System network [UMTS network (UMTS = Universal Mobile Telecommunication System)].

17. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the subsystem's landline network connection is associated with [the] a Integrated Services Digital Subscriber Line network [ISDN network (ISDN = Integrated Services Digital Network)].

18. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the subsystem's landline network connection is associated with [the] a [PSTN network (PSTN =)] Public Switched Telephone Network[].

19. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the subsystem's landline network connection is associated with [the] a power supply network/powerline network.

20. (Amended) The subsystem as claimed in claim 1, wherein [one of the preceding claims, characterized in that] the subsystem's landline network connection is associated with [the] a [xDSL/ADSL network (xDSL = general generic term for Digital Subscriber Line, ADSL = Asymmetric Digital Subscriber Line)] Digital Subscriber Line/Asymmetric Digital Subscriber Line network.

21. (Amended) A method for communication in a subsystem of at least one of a mobile network [(1) and/or] and [of] a wired communication network, [where, in] the subsystem[, which comprises a plurality of elements containing] comprising: a home base station[,]; at least one repeater station; [(6; 7; 8; 9)] and at least one mobile station [(17; 18; 19; 20)],

where the home base station [(3)] maintains a connection to at least one of a mobile radio network [(1)] and [possibly to] a landline network, [(2)] and forwards [this] the connection to the at least one mobile station [(17; 18; 19; 20)] using the at least one repeater station [(6; 7; 8; 9)],

[characterized in that the at least] wherein one repeater station [(6; 7; 8; 9)] automatically splits the resources.

22. (Amended) The method as claimed in claim 21, [characterized in that] wherein the resource splitting includes splitting used frequencies and/or used timeslot and/or [CDMA code CDMA =]Code Division Multiple Access[)] code.

23. (Amended) The method as claimed in claim 21, wherein [one of the preceding method claims, characterized in that only that element (] the mobile station or home base station[)] which initiates the logical connection setup starts the automatic use of the resources [(setup/clear-down of the data channels)] between itself and the next connection element in the logical connection chain, and, if there are one or more repeater stations [(6; 7; 8; 9)] in the logical line of connection, the respective repeater station [(6; 7; 8; 9)] performs channel setup for the next element, including automatic resource use.

24. (Amended) The method as claimed in claim 21, [one of the preceding method claims, characterized in that] wherein a repeater station [(6; 7; 8; 9)] serves a plurality of mobile stations [(17; 18; 19; 20)] at the same time.

25. (Amended) The method as claimed in claim 21, wherein [one of the preceding method claims, characterized in that] the repeater station [(6; 7; 8; 9)] transmits on a [BCCH (Broadcast Control Channel)] Broadcast Control Channel a list of resources already used which cannot be used by the mobile station initiating a connection.

26. (Amended) The method as claimed in claim 21, wherein [one of the preceding method claims, characterized in that it is carried out for] the connection setup is initiated from the landline network and/or mobile radio network [(1) (incoming call)] incoming call.

27. (Amended) The method as claimed in claim 21, wherein [one of the preceding method claims, characterized in that] it is carried out for] the connection setup is initiated by the subsystem [()outgoing call()].

28. (Amended) The method as claimed in claim 21, wherein [one of the preceding method claims, characterized in that it is carried out within] the subsystem performs the [for] connection transfer procedures between various repeater stations [(6; 7; 8; 9)] and/or between a repeater station [(6; 7; 8; 9)] and the home base station [(3)].

In the Abstract:

Please replace the Abstract in its entirety with the Abstract attached hereto.

--IN-HOUSE SUBSYSTEM IN A MOBILE RADIO NETWORK

ABSTRACT

A an in-house subsystem in a mobile radio network having a fixed home base station, one repeater station and one mobile station, and a method for communication in this subsystem, where the elements of the subsystem have means which automatically organize the splitting of the system resources between the home base station, the at least one repeater station and the at least one mobile station.--

Patented Feb 20 1990